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09/986,271

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EXAMINER

VERDIER, CHRISTOPHER M

ART UNIT

PAPER NUMBER

3745

DATE MAILED: 10/08/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/986,271

Applicant(s)

FUJINAKA ET AL.

Examiner

Christopher Verdier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-13 and 17-24 is/are pending in the application.
- 4a) Of the above claim(s) 8-13 and 17-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/090,944.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Receipt and entry of Applicants' Preliminary Amendments dated November 8, 2001 is acknowledged.

Election/Restrictions

Applicant's election with traverse of species VI, figures 27-31 in Paper No. 5 is acknowledged. The traversal is on the ground(s) that all of species I-VI are sufficiently related so that a thorough and complete search for species VI should necessarily encompass a thorough and complete search for species I-V, and that search and examination of all species could be made without serious burden. This is not found persuasive because different ones of the different claimed species require additional classes and subclasses to be searched, which are not required for other ones of the different claimed species. For example, species III, figures 14a-14c, 16b, 18a-18b, 19a-19f, and 20 requires an additional search in numerous subclasses of class 416, for the geometrical shape of the blade as set forth in claims 8-13. This is not a required search for the elected species VI, figures 27-31, which relate to molding of the blower housing, which requires an additional search in class 264, Processes of Plastic Shaping for injection molding of the blower housing. Similarly, a search in class 264 is not a required search for species I-V, for example. In addition, the number of permutations of the blower housing features in the differing species is unreasonably large and examination of all species would present a serious burden for the reasons set forth above. Applicant may wish to consider obtaining an allowable generic claim in order to be entitled to consideration of claims to additional species

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which are written in dependent form or otherwise include all the limitations of an allowed generic claim as set forth in 37 CFR 1.141.

The requirement is still deemed proper and is therefore made FINAL.

Claims 8-13 and 17-19 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 5.

Specification

The abstract of the disclosure is objected to because it contains the phrase "The present invention" (line 1) which is implied and should be deleted. Correction is required. See MPEP § 608.01(b).

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The disclosure is objected to because of the following informality: Appropriate correction is required.

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On page 1, line 2, the fact that application 09/627,04 matured into U.S. Patent 6,332,755 should be included.

Examiner's Suggestions to Claim Language

The following are suggestions to improve the clarity and precision of the claims:

In claim 20, line 3, "the" (first occurrence) may be deleted.

In claim 20, line 5, -- the -- may be inserted after "of".

In claim 20, line 10, "the" (first occurrence) may be changed to -- a --.

In claim 20, line 10, "the" (second occurrence) may be changed to -- an --.

In claim 21, line 3, "the" (second occurrence) may be deleted.

In claim 21, line 3, "the" (third occurrence) may be changed to -- a --.

In claim 22, line 2, "the" may be deleted.

In claim 22, line 3, "the" (first occurrence) may be changed to -- a --.

In claim 23, line 2, -- are -- may be inserted after "spacers".

In claim 23, line 3, -- and -- may be inserted after "direction".

In claim 24, line 5, "the" may be changed to -- a --.

Claim Objections

Claim 24 is objected to because of the following informality: Appropriate correction is required.

In claim 24, line 2, "21using" should be changed to -- 21 using --.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 20-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 20, lines 11-12, "(n is an integer equal to or larger than five)" is indefinite, because limitations in parentheses are not accorded weight. In claim 21, line 4, claim 22, lines 3-4, and claim 23, lines 2-3, "with respect to the radial direction" is indefinite, because it is unclear what element of the blower the radial direction is relative to. In claim 24, lines 7-8, "wherein the slits all around the annular wall are formed by said pair of slide cores at a time" is unclear if "at a time" is meant to mean "at the same time", or not. The specification (page 40, last paragraph) should be amended accordingly. In claim 24, lines 8-10, "and the annular wall ... as a single piece respectively" is incomplete and unclear.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 20-21, as far as they are definite, are rejected under 35 U.S.C. 102(e) as being anticipated by Otsuka 5,707,205 (figures 1a-1c and 8a-8b). Note the blower arranged to suck air inside annular wall 2/15 through slits 6 as fan 1 rotates, with the annular wall being formed away from ends of fan blades near 1, and the slits 6 passing from the inner perimeter to the outer perimeter of the annular wall at a section which corresponds to the ends of the fan blades, being formed in sections of the annular wall which are opposite to the ends of the fan blades, with the annular wall with the slits 6 being formed by stacking plural annular plates 7 in spaced relation from each other through spacers 8 in a direction of an axis of rotation of the fan, with all of the spacers being disposed in parallel with each other, namely parallel to each other in the axial direction of the blower/fan. The spacers 8 at and near the middle of the four sides of a casing body are inclined with respect to the radial direction 17 (figures 8a-8b).

Claim 20, as far as it is definite, is rejected under 35 U.S.C. 102(b) as being anticipated by Starnes, Jr. 5,407,324 (figures 2-5). Note the blower 10a arranged to suck air inside annular wall 72 through slits 60 as fan 36 rotates, with the annular wall being formed away from ends of fan blades near 36, and the slits 60 passing from the inner perimeter to the outer perimeter of the annular wall at a section which corresponds to the ends of the fan blades, being formed in sections of the annular wall which are opposite to the ends of the fan blades, with the annular wall with the slits 60 being formed by stacking plural annular plates 58 (which are annular at their inner periphery) in spaced relation from each other through spacers 64 in a direction of an

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axis of rotation of the fan, with all of the spacers being disposed in parallel with each other, namely parallel to each other in the axial direction of the blower/fan.

Claim 20, as far as it is definite, is rejected under 35 U.S.C. 102(b) as being anticipated by Wang 5,583,746. Note the blower arranged to suck air inside the annular wall 35 through slits 70 as fan 40 rotates, with the annular wall being formed away from ends of fan blades near 40, and the slits 70 passing from the inner perimeter to the outer perimeter of the annular wall at a section which corresponds to the ends of the fan blades, being formed in sections of the annular wall which are opposite to the ends of the fan blades, with the annular wall with the slits 70 being formed by stacking plural annular plates 30 (which are annular at their inner periphery) in spaced relation from each other through spacers 32 in a direction of an axis of rotation of the fan, with all of the spacers being disposed in parallel with each other, namely parallel to each other in the axial direction of the blower/fan.

Claim 20, as far as it is definite, is rejected under 35 U.S.C. 102(b) as being anticipated by Thomas 5,288,203 (figure 11). Note the blower 20D arranged to suck air inside the annular wall near 62 through unnumbered slits as fan 28 rotates, with the annular wall being formed away from ends of fan blades near 30, and the slits passing from the inner perimeter to the outer perimeter of the annular wall at a section which corresponds to the ends of the fan blades, being formed in sections of the annular wall which are opposite to the ends of the fan blades, with the annular wall with the slits being formed by stacking plural annular plates in spaced relation from each other through spacers 64A, 64B in a direction of an axis of rotation of the fan, with all of

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the spacers being disposed in parallel with each other, namely parallel to each other in the axial direction of the blower/fan.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 22, as far as it is definite, is rejected under 35 U.S.C. 103(a) as being unpatentable over Otsuka 5,707,205 in view of Wang 5,583,746. Otsuka (figures 8a-8b) discloses a blower substantially as claimed as set forth above, including spacers 8 which are inclined with respect to radial direction 17. However, Otsuka does not disclose that these spacers are arranged in the four corners of the casing. Rather, the spacers 8 are spaced from the four corners of the casing.

Wang (figure 2) show a blower that sucks air inside an annular wall 35 through slits 70 as fan 40 rotates, with spacers 32 that are arranged in the four corners of a casing near 30, for the purpose of providing rigidity to the casing.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to form the blower of Otsuka such that the spacers are arranged in the four corners of the casing, as taught by Wang, for the purpose of providing rigidity to the casing.

Claim 24, as far as it is definite, is rejected under 35 U.S.C. 103(a) as being unpatentable over Otsuka 5,707,205 in view of Applicants' Admitted Prior Art. Otsuka (figures 8a-8b) discloses a blower substantially as claimed as set forth above, including an unnumbered boss (near 15 in figure 1c, which corresponds to figures 8a-8b) to which an unnumbered motor is secured, but does not disclose a method for molding a housing of the blower using a pair of upper and lower molds for forming the inner surface of the annular wall and the boss to which the motor is secured, with a pair of slide cores sliding opposite to each other at right angles to the moving direction of the pair of molds, with the slits being formed by the pair of slide cores at a time, and the annular wall with the slits, with a base serving as a reference for installing the blower and the boss are molded as a single unitary piece.

Applicants' Admitted Prior Art (page 35, last three lines, and page 36, lines 1-3) states that molding a housing of the blower as shown in figures 28a-28b using a pair of upper and

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lower molds for forming the inner surface of the annular wall and the boss to which the motor is secured, with a pair of slide cores sliding opposite to each other at right angles to the moving direction of the pair of molds, with the slits being formed by the pair of slide cores, with the annular wall with the slits and the boss being molded as a single unitary piece, is a common means of molding the housing, for the purpose of enabling mass production of the housing.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to form the blower of Otsuka such that the housing of the blower is made using a pair of upper and lower molds for forming the inner surface of the annular wall and the boss to which the motor is secured, with a pair of slide cores sliding opposite to each other at right angles to the moving direction of the pair of molds, with the slits being formed by the pair of slide cores, with the annular wall with the slits and the boss being molded as a single unitary piece, as taught by Applicants' Admitted Prior Art, for the purpose of enabling mass production of the housing. Concerning the limitation of a base serving as a reference for installing the blower, note that figures 1a-1c of Otsuka teach a base 16 for the purpose of providing a mounting means for the blower, which base inherently serves as a reference for installing the blower, and it would have been further obvious to a person having ordinary skill in the art to incorporate a base into the embodiment of Otsuka shown in figures 8a-8b, for the purpose of providing a mounting means for the blower.

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Allowable Subject Matter

Claim 23 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Verdier whose telephone number is (703)-308-2638. The examiner can normally be reached on Monday-Friday from 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward K. Look can be reached on (703) 308-1044. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.



Christopher Verdier
Primary Examiner
Art Unit 3745

C.V.
October 6, 2003